

Initial course outline (example)

Safety-qualified underground telecommunications installer (40 hours)

Number of hours: 40 | Class size: TBD | Prerequisites: None

Course description

This course provides trainees the education to become a certified safety-qualified underground telecommunications installer (installer). This course is intended to provide information, training and education that will provide installers with the tools needed to pass a certification exam after completing the required 40 hours of Minnesota Department of Labor and Industry (DLI)- recognized training.

This training will include and address a variety of topics and safety measures required to successfully and safely complete work as a safety-qualified underground telecommunications installer.

Expected outcomes for trainees

The installer must successfully complete a combination of classroom instruction and hands-on training to then pass an exam to demonstrate they have the knowledge, skills and training required for certification. An exam score of 70% or higher is a suggested best practices benchmark for DLI-recognized training providers.

The installer must have a full understanding and knowledge of how to safely install underground telecommunication systems after successfully completing a DLI-recognized course.

Course content

This course will consist of both classroom training and in-the-field hands-on training. Best practices suggest that a training course may include 16 hours of classroom training and 24 hours of hands-on training. This training will include topics addressing proper work procedures for the safe installation of underground utilities including but not limited to the following:

1. Understanding the need and use of utility locations.
2. Regulations applicable to excavation near existing underground utilities. Including:
 - a. Equipment excavation;
 - b. Hand digging; and
 - c. Hydro excavation.
3. Understanding the use and techniques for flagging and traffic control of the work area.

4. Understanding of occupational health and safety issues, and how to properly protect workers.
5. How to avoid and/or mitigate the safety hazards associated with underground utility installations.
6. Understanding of working in a confined space such as manholes, etc.
7. Understanding of horizontal directional drill operations
 - a. including the use of a tracking device to safely guide the directional drill.
8. Understanding what a proper response is for a line strike or other incident.
9. Other information as needed.

After completion of the certificate program the installer is required to complete a minimum of 4 hours of continuing education (CE) every three years from a DLI-recognized training provider to maintain certification.

Methods of presentation may include

Instructor lecture and/or demonstration, group projects, video presentation, working with OSHA material(s) and hand-on training.

Assignments and methods of evaluation

Classroom assignments, reading from textbooks, participation in discussions, skill demonstration, group projects and final exam.

Course content comprehensive description (example for best practices)

Section 1: Utility Locates

- A. Gopher 1 Call
 - Underground utility avoidance and damage response protocol
 - Metro tech operations
 - Hydro-vacuum trailer operations
 - Basic utility blueprint reading

Section 2: Confined Space Safety

- A. Scope
- B. Definitions
 - General requirements
 - Work permit required
 - Permitting process
 - Entry permit/permission
- C. Training
 - Duties of entrants

- Duties of attendants
- Duties of entry supervisors
- Rescue and emergency services

Section 3: Flagging/Traffic Control

- Flagger safety
- Proper techniques for types of traffic control
- Control component, proper setup for traffic control
- Flagging handbook

Section 4: Global Harmonization Systems (GHS) and Safety

- Safety data sheets (SDS) and labeling
- Dust control techniques
- Personal protective equipment (PPE) selection and use

Section 5: Horizontal Directional Drill

- Maintenance and safety operations
- Horizontal drill operations
- Above-ground drill head tracking